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able, and cotton growing could not be attempted there. Silk, which can also be conveniently and profitably transported long distances on mule back, has been suggested. A few families on the Ta Li plain have taken up cocoon raising, but the technique is not generally understood, there are no large groves of mulberry trees, and many years will be needed before the production of silk can be of any commercial importance. So far the Min Chia have found no alternative to the opium crop. The government, as is now well known, have completed the remarkable motor road from Yunnanfu to Burma, which is connected with Ta Li by a short branch. The road was built by forced labour and as a war measure. A railway, which however will not pass within forty miles of Ta Li, is now under construction. The eventual benefits of these improved communications will no doubt be felt by the Min Chia, but at present they are more conscious of the demands on their time and energies.

The suppression of opium has therefore left the Min Chia for the present at the mercy of the rice standard, unalleviated by any cash crop raised for export. It is the working of this almost closed economy, as yet unaffected by any serious volume of intercourse with the outside world, which forms the subject of this chapter. Since rice is the dominating factor in this system it must have pride of place.

The method of rice cultivation is well known, nor do the Min Chia differ in this respect from other rice growing peoples. The rice is grown in seed beds planted in the latter part of March, the second lunar month, when frost need no longer be expected. The fields are cleared of the wheat and bean crop in May, and are then ploughed in readiness for the flooding, which is either effected by irrigation on land nearest the mountain, or by the monsoon rains which begin, on the average, at the end of May. As soon as the fields are flooded the rice seedlings are transplanted from the seed

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the fields, cultivate with the hoe, do most of the transplanting of rice, and assist the men at the harvest. They also bring the harvest back to the homestead. Marketing is usually left to the women who carry loads of produce to the city on their backs, settle down for the day to sell it, and return to the villages in the evening with the proceeds. This work is done both by married women and young girls. The Min Chia women are extremely strong, often doing porterage work which in other parts of China would only be done by men.

Most of the rice land is privately owned, but every village has some public land, usually attached to a temple, which is rented out at the usual rate of half the crop to the tenant and half to the public. The proceeds are used to maintain the village school, which is held in the temple itself, and any surplus may be applied either to some public work such as repairs to the temple, or for the expenses of a festival. The public also have the right of shooting and of hunting over all land, the spoil going to the hunter. This right does not mean very much in a closely cultivated area where game is scarce, and though the same free right of the chase applies to the mountain, the Min Chia make little use of it, partly because the control of fire-arms is strict, a license being required, and partly because they show no aptitude as hunters. The wooded slopes of T'sang Shan are the safe retreat of pheasants, hares, partridges, wild goat, deer, and the animals which prey upon them, wolves, leopards, and possibly tigers.[1]

The neglect of the hunting rights is characteristic of the Min Chia attitude to mountains. The entire area of Ts'ang

[1] No tiger has been reported on T'sang Shan for several years. Leopards are not plentiful, but wolves abound, and raid the farms on the plain for chickens, pigs, and even small children. They never hunt in packs, and will not attack an adult, but show no fear of man when encountered on the mountain.

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231 Shan is public land. On the lower slopes, easily reached from the plain, some cattle are grazed, but as they are driven down to the city or villages every night, and no attempt has ever been made to build cow byres on the mountain itself, they cannot reach the middle slopes, where the pasture is 234 much better. On the other hand the Min Chia, in sharp contrast to the Chinese, milk their cattle, and make two kinds of cheese, called *niuzai* or "milk cakes," and *zerbiu*. Although the Chinese in other parts of the country regard cow's milk as unfit for human consumption, and milk drinking as a disgusting habit, the Yunnanese have taken to *niuzai* or "*Ju san*", as it is called in Chinese, which is even brought up to Yunnanfu, where it is a delicacy.

231 The steepness of the slopes of Ts'ang Shan accounts in some manner for the Min Chia failure to raise more cattle, but the neglect of sheep raising cannot be explained on these grounds. Small flocks of sheep and goats—always more goats than sheep—are driven up daily to about the 9,000 ft. level, but they are always brought back to the villages or the city at night. They cannot therefore reach the fine pastures lying below the rain forest between 9,000 and 11,000 feet, where rich grass remains uncropped from year to year. The small flocks that do exist are not large enough to graze the area in daily reach of the plain, and they largely consist of that rather useless animal, the goat. When asked why they do not raise more sheep, the Min Chia shepherds give a reply which reveals the mental habits bred of long isolation. They say "there are no more sheep". In other words the small flocks they own, are, to them, the only existing flocks of sheep. Other places, remote beyond the encircling mountains, may have sheep also, but this has no practical importance. Sheep from such districts are not available, cannot be, or at least never are, brought to Ta Li, and have no more bearing on their problem than sheep in Australia.

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231 236 The quality of the wool produced by the Ta Li sheep is hairy and poor, and the few hundreds of sheep in their flocks do not give any appreciable amount. The demand for mutton, especially since the Moslem population has declined, is small. Though these points are always put forward as an explanation of why there are so few sheep and so much wasted pasture, the manner in which the Min Chia answer these questions shows that they have never really thought about them before. "There are no more sheep" ; this expresses their attitude, and the reasons why there are no more only occur to them as afterthoughts, when some stranger takes it into his head to dispute or argue about a fact which to them is as satisfying as it is obvious.

314 Stock raising in fact is only a minor side line of the villages lying at the base of the mountain. Those families who have not enough rice land to live on engage in a little stock raising, or woodcutting, or cutting the mountain grass for fodder. But these activities are rather despised. Only the very poor, one was constantly told, would try to earn a living on the mountain, and the implication that this sort of livelihood was in some way rather barbarous was clearly present. That the returns are poor is certainly true. A woman or girl—such work is usually left to them—who goes up the mountain at dawn, perhaps to 10,000 or 11,000 ft., a three hour climb, and cuts a load of hay, only gets two nickel, or a half-penny, for her fodder when she gets down to the city by four o'clock in the afternoon to sell it to the muleteers at the caravan inns. So much work for so poor a reward would obviously only be undertaken by those reduced to great poverty.

313 Bamboo cutting, which involves going still higher, to the bamboo forest at 12,000 ft., under snow and inaccessible in winter, is a little more paying. Bamboos are made into brooms, or cut for sticks, and these can be sold at the fort-

THE TOWER OF FIVE GLORIES

Towards mid-day a long line of Min Chia women with heavy pieces of wooden furniture, chests, benches and bed ends, on their backs, stagger slowly on to the fair ground. With the weight taken by a band round the forehead they have carried these loads from Chien Ch'uan and Ho Ch'ing, more than sixty miles to the north, and even for unladen men a three days' journey over the mountains.

Not far from the furniture sellers the pottery of Yung Pei, a town in the High Yang Tze valley one hundred miles to the north, is displayed. No pottery is made on the Ta Li plain, and apart from the Kiangsi ware used by the rich, all the pottery used comes from these Yung Pei kilns. Here one may see a cheap blue and white porcelain, mainly rice bowls, and a wide variety of earthenware vessels many of which reproduce in this coarse material the lovely shapes admired by connoisseurs in old Chinese porcelain. There are also the brittle, black clay cooking vessels from the district of Ma Kai south east of Ta Li, which are made from clay containing a high proportion of graphite, and are fire resisting. These cooking vessels, which sell for a few nickel in Ta Li, and for less than a nickel apiece in the district where they are made, almost entirely replace metal pots and pans for cooking. The only iron ware used in cooking are the large shallow cauldrons in which rice is cooked. These, too, are made in a neighbouring part of the province.

The busiest corner of the market is of course the produce section, where rice and vegetables are on sale, or are directly bartered for other commodities. Here the farmers can exchange one *tou* of rice for ten Chinese feet of cotton cloth of the standard width of one foot; and this is sufficient to make a complete suit of coat and trousers. A large part of the country produce brought to market consists of livestock, pigs, chickens, and some cattle. Horses are not in quite the same category as they are mainly used in the transport trade and the dealers are Chinese, Moslems or Tibetans. The price

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of pigs naturally depends on the age and quality of the animal, but 70 dollars Nickel, or fifteen shillings, is the usual price of a fat pig ready for slaughter. Pig bristles, which are one of the few local products which have a world market, fetch ten dollars Silver a catty, or about nine shillings for one and a quarter pounds weight. This is in Ta Li a high price, but it must be remembered that only the bristles along the spinal ridge of the pig are of any use, and the quantity obtained from one animal is not very large. Sheep, which, as has been pointed out, are not greatly valued or numerous, fetch about twenty dollars Nickel a head at most, as compared with seventy to eighty for a fat pig. Cattle, either for milking or draught, are a little more expensive, the prices ranging between twenty and thirty dollars Silver a head, or about fifteen shillings to one pound sterling. The price of a horse or mule varies a great deal, as there is a wide difference between the value of a pack pony and a good riding horse. Fifty dollars Silver, or about two pounds, is the lowest price, but a good mount may cost four times as much, and big, powerful mules bred on the Tibetan border, which can carry loads of two hundred catties (two hundred and fifty pounds), were selling for as much as four hundred dollars Silver or nearly £16 os. od. a head. It is true that this high price was paid by army buyers at the autumn fair in 1938, and is not normal.

Although the character of this market remains much the same throughout the year there are seasonal changes. Thus in the beginning of autumn large numbers of quilts and warm coats are offered for sale, and in the summer umbrellas, "rain cloth"—a kind of local oil cloth—and palm fibre rain cloaks worn by the farmers, are in great demand, for the Min Chia, like the Chinese, hate getting wet. Towards the end of the lunar year, when the great New Year settling day is approaching, the market becomes very busy,

4: Liu K-4 (no date) 1944 AE3 Sino-Tibetan
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476 For domestic animals they all have pigs, cows, or sheep. The common variety is the yellow cow, and the P'ien-niu 犏牛, which is a hybrid of yellow cow and yak. The latter are kept as draft animals. During the spring or early summer, when the crops are coming out, the people send their cows up to the mountains in order to save the young crops from being trodden or destroyed by the cows, and at the same time to find grazing food, located between the agricultural and the forest zones. They have a certain number of pastures in definite valleys. The people of one valley or several valleys all cooperate to gather their animals into one grazing ground, and leave it to one family to be responsible in taking care of all the animals sent there. The pasture is open to grazing animals from May, and is closed by the end of September. This is called one season. Fees for the care of each animal in the grazing ground per season vary from palce to place and year to year. The fee for each animal for this past summer was 1.2 tou of corn or wheat. One wonders if this grazing cooperative is not the earliest cooperative in China.

II. ROCK CAVE COOPERATION

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224 Because of the limited amount of cultivable land, and the unreliable harvests caused by the great variability in rainfall, agriculture alone is not enough for their livelihood. They have to depend upon the products of the high mountains for part of their income. The chief products of the high monntains are animal products and medicinal herbs. Therefore, the two important avocations for the people are hunting and herb digging. Both types of work mean a difficult and lonely life in the wild and wet wilderness of the high mountains. One has to drink out of the streams, feed on wild vegetables or animals. At night, one has to seek for shelter under rock cliffs or in caves. Through long years of hard experience, definite places for night dwelling are marked out and named. They are called Rock Nest 岩窩, Long Cliff Nest 長崖窩, Ch'iang Ho Cave 羌活洞, etc. Everybody who goes to the mountains knows where to go for the night. But there are certain traditions or customs about it. That is, when you leave the place you must leave it clean and everything in order. By everything, I mean the crude equipment people use for cooking, such as a large piece of rock slab for making dough, a wooden hook which is used to hang the teapot with from the overhanging roof, and three pieces of rocks for the support of the cooking pot. Usually people also gather a heap of dry fuel inside ready for emergency use for later comers. Another good custom is that you can leave your own things inside and go off roaming in the mountains hunting or digging. Even if there are new-comers, there is not only no stealing, but instead they are very hospitable and share each others trophies. The spirit is quite different from that of the plains people. They are neither selfish nor calculating in their dealings with one another. The poor people are usually more generous than the rich. This is true everywhere, and it is true in the mountains as well as in the grassland.

5:Graham E-5 (1933, 1941)1942 AE3 Sino-Tibetan
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Ch'iang

Chinese and freely intermarry with them. In many villages only Chinese is now spoken, and only a few of the oldest people understand the Ch'iang language. The Government has opened primary schools where the Chinese language and culture are taught, and in Wei Chow there is a normal school which the brightest Ch'iang students are encouraged to attend. The writer is much pleased at the improvement in the attitude and relations of the Ch'iang towards the Chinese and of the Chinese towards the Ch'iang.

II. Introduction.

I. History. The first references to the Ch'iang people are on the oracle bones. They lived to the west of the Shang dynasty Chinese who made war upon them, took them captives and even offered them as sacrifices to the ancestors of the Shang people. On the oracle bones the upper part of the word meaning Ch'iang is the horns of a sheep or goat, and the lower part is man 𠂇, meaning people who raise sheep or goats.[1] The Chinese word for Ch'iang today consists of the character for sheep or goats above, and below is the character for man 羌. A small third character is sometimes added 羌, and this character is sometimes abbrevited to a dot. An interesting fact is that while the Ch'iang are all farmers, they depend for a livelihood very much on their flocks of sheep and goats.

There is ample evidence to show that the Ch'iang united with the Chou people in the war that resulted in the overthrow of the Shang dynasty.[2] Later there were wars with the Chinese, and at least some of the Ch'iang migrated westward and to the southwest. At this point let us quote the tradition of the Ch'iang. The writer first heard it from Kou P'in-shan 苟聘三, who mentioned a year and a half as the time of the migration. He has heard it from several Ch'iang people and took it down in this form from Mr. Ch'en Chen-shu, who lives above the village of K'a Gu.

I. Creel, Herrlee Glessner The Birth of China, 1936, p. 213.

II. Li Fan T'in Chih, Book Four, History of the Border Section 2.
理番廳志 卷四 邊防志二
Shih Chi, Book Four, Chou Ben Chi, Part Four.
史記四 周本紀第四
Chung Kuo Min Ch'u Shih, Chapter II, The Ch'iang Race.
中國民族史 第十一章 羌族
Creel, Herrlee Glessner, The Birth of China, 1936, p. 215-6
Legge, James, D. D., The Chinese Classics, Vol. III., Part II., The Book of History, pp. 301-2

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and a new plot cut and burnt. This practice is widespread in the mountains of West China. 241

5. Food.

The products of the soil are wheat, corn, buckwheat, millet, barley, beans, peas, potatoes, squashes, turnips, Chinese cabbage, celery and other vegetables, besides walnuts and fruits. Honey-bees are common. Often the bees are robbed of their honey so late that the bees starve to death during the winter. The domestic animals are dogs, cats, horses, cattle, sheep goats, pigs, chickens, and ducks. The main product of the soil is corn. Rice is not raised even in the valleys. 241 231 262 [243]

The above paragraph gives a clue to the food that is eaten. Most families can not afford to buy rice, which must be carried in from Kuanasien. Instead a great deal of corn is eaten. This may be made into cakes, or boiled almost dry and eaten like rice in bowls with chopsticks. Soya beans are made into bean curd, and white and brown beans are boiled. Wheat, buckwheat, and barley may be made into biscuits or cakes always unleavened, for there is no leavened bread among the Ch'iang. Wild fruit vegetables, and berries are sometimes gathered and eaten, and vegetables are sometimes dried and used in the winter time. Any kind of domestic animal or wild game may be killed and eaten with relish, excepting that there is a taboo against killing or eating cattle because they are used for plowing. Eggs are a luxury to be eaten on special occasions. On the whole the Ch'iang do not enjoy a well-balanced diet. 262 252

6. Clothing.

Most of the clothing of the Ch'iang is made of undyed hemp cloth which is woven by the women. Straw sandals are used less than among the Chinese or the Wa Sau. The women make cloth shoes that are more comfortable and more durable. The shoes for dress-up occasions are ornamented with vari-colored flowers and butterflies which are embroidered on the shoes by the women. Stockings are seldom worn. Instead, woolen puttees are wrapped first about the feet, then about the lower legs to the knees. 291

Both men and women wear trousers. The upper garment is a homespun hemp gown. In the front it reaches just below the knees. The gown of a women is lower behind, reaching almost to the

311 in between the dry, treeless mountains. But the mountainous country, too, can feed the tough and industrious population of Chinese and Mohammedan farmers, provided there are /4/ peaceful political conditions and a settled administration, although naturally these highlands (1500 - 3000 meters) cannot be nearly as densely populated as the lower, warmer loess regions of central and eastern North China.

133 South of the loess country in Kansu the boundary toward Szechuan
177 is formed by a mighty mountain range over 5,000 meters high, a part of the K'un-lun system. From the north, only unimportant branches of Chinese culture have penetrated into these mountains, since here the conditions necessary for Chinese agriculture are lacking. Neither the narrow valleys that have eaten into limestone, primary rock or granite, nor the undulating uplands more than 3,000
[361] meters high are suitable for the Chinese farmer. Sedentary Tibetans or Fantzu (following the Kansu colloquial usage, we shall subsequently refer to the "Tibetans" as "Fantzu") live in the valleys and in the
[241] lower parts of the highland. Even though the summers here are short, crops of Tibetan barley (ch'ing-ku), peas and rape are relatively good. Thus they are able to provide themselves as well as the nomad tribes
●231 living still higher up, with the indispensable barley flour. But these Sedentary Fantzu lead a somewhat different life from the Chinese farmer, for besides cultivating their fields, they also raise animals. The yak serves them as mount and beast of burden and gives them milk and butter, which makes them less dependent on crops in bad years, and provides them with an inestimable source of health and energy in this cold mountain climate.

133 You are struck by these conditions if you travel from the provincial
361 capital of Lanchow south through the district of Ho-chou (modern name Lin-hsia) to the famous Labrang monastery which is south of the /5/ loess region in the mountains. You reach the valley of the T'ao-ho from the Huang-ho Valley by traveling through a loess region inhabited mainly by Mohammedans, and through a sparsely settled granite mountain range with a crest not quite 3,000 meters high. South of the T'ao-ho is a deeply furrowed loess landscape that reaches almost 3,000 meters. This is bounded on the other side by the Hsia-ho, and is inhabited by Mohammedans. In the Hsia-ho Valley the percentage of Chinese is again larger, but Mohammedanism has made more and more headway in the course of the last 30 years, partly after very bloody insurrections which were difficult to suppress. This is probably the main reason why the Chinese government has shifted the boundary between Kansu and Ch'inghai farther west.

Mewu

631 About one kilometer down the valley from this monastery city, a
443 small market town arose, inhabited mainly by Mohammedans. Nine
years ago the Chinese government made this the capital of the dis-
241 trict of Hsia-ho. Li An-che 5) gives a detailed description of Labrang.
231 /7/ The Tibetans who live around Labrang are farmers. They grow
Tibetan barley in the Hsia-ho Valley and its lateral valleys. If con-
ditions are favorable, they also plant some wheat, as well as oats,
peas, broad beans, rape and flax. They also raise yaks, sheep, goats,
horses and pigs.

133 Not far south of Labrang the region of the high Tibetan steppe
begins. Its southern boundary toward Hsik'ang and Szechuan is
formed by the mighty Min-shan, a portion of the K'un-lun system.
West of Labrang are the highlands of the Ch'inghai Province (Kokonor).

133 Above 3,000 meters vegetation gradually comes to an end, not,
241 however, peasant settlements. Even in the treeless, flat, trough-
231 shaped high valleys between 3,000 and 3,500 meters there are every-
361 where small villages of sedentary Tibetans. Here they grow Tibetan
barley and oats, often the two crops mixed, as well as rape. With
increasing altitude, cultivation gradually grows less, and from about
3,500 meters upward we find grassland inhabited only by stock
farmers. (1)

1. Cf Ekvall 4), page 29.

177 Although the Tibetans who live here are under Chinese adminis-
tration, they are nevertheless very independent of the Chinese, and
are not very much influenced by Chinese culture. They are divided
into individual tribes, one of which (the Mewu-Fantzu) we shall
describe more closely in the following account.

131 The territory of the Mewu-Fantzu lies south of the large lamasery
of He-tso (2) and east of the "old" city of T'ao-chou. The tribe

2. Tafel 2) Vol. II gives a good illustration of the He-tso monastery.

of the Mewu-Fantzu consists of sedentary as well as nomadic
Tibetans. /8/

123 After I had lived in Labrang and He-tso for some time, I visited
two monasteries belonging to the Mewu tribe: the old and the new
Mewu monasteries (Mewu-chiu-szu and Mewu-hsin-szu). Then I
pitched my tent 18 or 20 kilometers south of the latter monastery
in a shallow valley of about 3,950 meters elevation. On the slope

a k'ang on the outside wall opposite the door. It is a 352
couch raised about 60 - 70 /centimeters/ from the floor,
made of bricks and hollow inside. The hollow area is
equipped with drafts and serves as a stove which is fed
from an opening in the outside wall.

dug through the floor. Fire can be kindled in these and they are connected with the hearth so that the fire gets sufficient draft. /21/

The furnishings are placed chiefly along the wall where the tent 778
roof slopes down and where the tent is thus lower. On the rear wall 353
of the right side, next to the place where the fuel is kept, 1/2 meter 352
above the floor, is the family altar, a simple rectangular wooden box about 1/2 meter high, 40 centimeters deep and 1 1/2 meters long. On this family altar stand bronze statues of the Buddha and small bowls for holy water. The rest of the space along the tent wall is chiefly filled with bags made of coarse yak hair, in which provisions are stored, with dried yak and sheep dung, with saddle gear for horses and yaks, and with skins. Guns are often kept on a separate stand. Dried meat and yak maws in which butter is stored are hung from the ceiling of the tent. A section of the right side of the tent is sometimes closed off by boards not more than 20 centimeters high and covered with dog skins. This serves as a special resting place.

The women's section on the left contains first of all the utensils 234
needed for the dairy. These are chiefly three cylindrical wooden 462
tubs 1 to 1 1/2 meters high and 75 centimeters in diameter, whose 342
staves are held together by hoops made of withes. One of these tubs, usually the smallest, nearest the rear wall, is used to store the sour milk. In the center is the butter cask; nearest the front, a large milk tub. The tub containing the butter is closed at the top and has a hole through which runs a long, heavy stamper. Suspended from the ceiling of the tent, above the milk tub, is a bag of coarse material, through which the whey can be strained from the curds.

Next to the tent a short stake is driven into the ground, to which 231
the watch dog is tied. In front of many tents there are also one or 788
two poles 3 meters high with lines from which hang prayer pennants. 343
Very occasionally there is a simple round sheepfold next to the tent, made of boards and poles.

The winter houses are also very primitive. They are usually /22/ 342
placed along the rear wall of a courtyard enclosed by mud walls two meters high. The only opening in the enclosure is a gate in the

Mewu

The women of the tent nomads do not go out to work like the 462
wives of the sedentary Fantzu. Year in and year out their whole time is taken up by caring for the animals.

The children are put to work early tending the animals. The 857
girls must, in addition, also gather dung, but the boys do not help in this occupation. The girls start to milk when they are 12 or 13 years old.

Animal Husbandry

The Mewu-Fantzu live exclusively from the products of their 231
livestock. They keep yaks, cattle, sheep and horses, also dogs, of course. The most important animal is the yak. The yaks of the Mewu region are generally pure black, occasionally /24/ spotted with white. There are yaks with and without horns. Lack of horns seems to be a recessive hereditary characteristic. There are wealthy families who own more than 100 yaks; but the average number is much less. The 20 tents in the community where I lived together owned 700 yaks, which means an average of 35 per family. The highest number of yaks per family in this community was 70, the lowest 7. It can also happen that poor people do not own any yaks at all, but merely rent them. A family of five needs more than 10 milch cows.

Not all families have bulls, but the owner of a bull does not get paid for covering. A cow drops her first calf when she is 2 to 3 years old. The gestation period of the yak is 9 months. Most calves are born in the third or fourth month. In the seventh or eighth month the cows are again covered. Good cows are allowed to grow very old; they are alsughtered only when they are 17 or 18 years old. The calf is gradually weaned, but the amount of milk it gets is reduced very soon after birth. When it is one or two months old the calf gets a nose plug, to prevent it from sucking. The adult yak gets a nose ring made of a bent length of a sturdy withe. Calves and young bulls are often driven to pasture in pairs with their fore-legs tied together, so that they cannot stray too far away.

The oxen are used as pack animals when they are three years old. At the age of 15 or 16 they are fattened and killed. The yaks graze all the year round; only when there is deep snow, which may happen every year in January and February, do they get some green cut oats. The yaks are never given any salt, and therefore always show a definite hunger for it. Milking is done exclusively by the 234
women and girls. The yak cow will let itself be milked only when her calf is tethered near by. A very good milch cow gives a bucket

mewv

234 of milk three times a day; an average cow gives two bucketfuls for the day. A milk bucket holds an average of /25/ 2 1/2 liters. The [415] buckets are made and repaired by Chinese. Good buckets are made of pine wood, first-class ones of cypress. Osiers are used as hoops.

The milk is drunk boiled or eaten as clabber. But most of the milk is used to make butter. Casein is derived from the buttermilk, and is filtered through a coarse bag, whereupon it is dried, stored in the form of coarse powder, and eaten. The whey is fed to the dogs. The butter is stored in mutton or yak maws, often for a long time, "up to more than 10 years." This old butter which gets very rancid is chiefly used in the lamaseries to feed guests at the festivals or to make Buddha images. Surplus butter is sent to the temple in which the son of the family is a lama. Lamas also often come to the tents and beg for butter, which is always willingly given to them. The price for old and new butter is the same. It comes to $0.50 per chin. (1) At home as well as in the temples old butter is made into

1. Chin, the Chinese pound, equals 605 grams.

lard in order to clarify it. This lard is used only as fuel for the sacrificial lamps.

236 The long yak hair from the animal's belly, back, and legs is plucked once a year in the fifth or sixth month. This is done by tying down the yak and winding the hair around a stick of wood and thus pulling it out in tufts. Yak hair is used to make cloth for the tent and for ropes. The latter are used to pull the tent widths taut, and as halters and hobbles for horses.

231 A four-year-old milch cow costs $15 to $20, an old ox ready
435 to be slaughtered, $12 to $13. Calves are not sold. Yaks are slaughtered mostly in September and October. Some of the fresh meat is eaten, most of it is hung up to dry. The dried meat is either hung in the tent or is packed in leather. In this packed state it is often given to a temple for /26/ safekeeping. A yak skin costs $1 to $4; a good yak tail costs 10 cents, a white one, 20 to 30 cents. Yak horns are used as snuff containers, rarely as drinking horns. They also serve as milk bottles for babies.

232 Cattle are raised only by the sedentary Fantzu, not by the tent nomads. But the tent nomads buy individual bulls for breeding, because they like very much to use crossbreeds between beef cattle and yaks. A cross between a male beef and a female yak is particularly valued (Chinese: pien-niu). The pien-niu grows larger than a yak and has somewhat shorter and more curly hair than the

Mewu

yak. Its tail is thick and bushy but, unlike the yak, is clearly de- 232
fined at the root. It has larger horns than the yak. The pien-niu gets to be over 20 years old, that is, older than the yak. Male pien-niu are always castrated and used as pack oxen. The pien-niu is valued because of its greater strength, its longer life and better milk production; it also withstands the warmer climate of lower altitudes better than the yak. For the yak breeder, therefore, the pien-niu has a similar position as the mule has for the horse breeder.

The pien-niu cow drops her first calf after 3 to 4 years. The 231 ●
price of a milch cow fluctuates between $40 and $50, and is thus 435
twice as high as that of a yak cow. A yak maw full of butter is the annual rent for a good pien-niu. A maw contains about 18 chin. The cross between a male yak and a female beef cow is called szu-pien-niu in Chinese. It is not regarded as valuable as the pien-niu, although it also lives to be 20 years old. The szu-pien-niu has a bushy tail, smaller horns and above all weaker legs than the pien-niu. The price of a szu-pien-niu is $30 to $40. The cross between the yak bull and the pien-niu cow (chia-pien-niu) is valued even less. It has the same fur as beef cattle, but is larger. This cross-breed lives to be only 10 years old. It costs about $30. A cross between /27/ a bull and a female pien-niu is called ga-ba. It lives to be no more than 7 or 8 years old. A ga-ba calf is immediately slaughtered, and the mother is then milked.

After yaks, sheep (1) are the most important domestic animals. 231

1. With regard to breeds, see Hermanns 3), page 87.

One family seldom owns more than 700 sheep; but there are also families that have no sheep at all. In the community made up of 20 tents where I lived there were seven families who had no sheep. The total number of sheep in this community came to more than 9,000, which means an average of 700 per herd owner. Sheep are not leased. One figures 40 to 50 ewes to one ram. The sheep drop their first young at two years; it drops only one lamb. A good ewe is allowed to die a natural death; otherwise sheep are slaughtered when they are two or three years old. Wethers are slaughtered at three or four years. A good sheep costs $3 to $3.50, a fat wether [436] $9.

Like the yaks, the sheep are driven to pasture early in the morn- 233
ing and back to the tents at night. Some herd owners have simple, circular sheepfolds made of wooden beams next to their tents, into which they drive their sheep at night.

Mewu

236 The sheep are sheared once a year in May or June. Neighbors
[476] help each other in this task without charge. It takes an average of two days to shear the herd of one family. A wether gives 1 chin of wool annually, a ewe, 1/2 chin. A chin of fleece costs 20 to 50 cents. At the time of my visit the demand for wool was so great
237 that the highest price was paid. A sheepskin costs $0.60 to $1.
435 However, skins of unborn lambs cost $2 to $4. A sheep gut is sold for $0.20 to $0.30; in He-tso, the nearest large town, the price goes
262 up to $0.40 when it is resold. More mutton than yak meat is eaten. Lambs are eaten only if they have died of some disease. The Fantzu do not drink sheep milk, but they use it for butter if they do not have enough yak milk.

● 231 /28/ The sheep often suffer from paralysis of both forelegs, and many die of this disease. Most of the animals die of starvation in February or March, especially if there has been much snow during
[476] the winter. If a family loses all its animals, everybody helps out by giving them others. The tent nomads do not often keep goats, but the sedentary Fantzu often do, and they also drink goat's milk.

Every family has at least one horse. The Mewu-Fantzu have a small breed of horses that measures about 130 centimeters at the withers. These Tibetan ponies are somewhat smaller and lighter than the Mongolian ponies or those from the provinces of Ch'inghai and Kansu. They are closer to the tarpan (Equus gmelini) than the Przewalski type (1). These horses have a great deal of endurance

1. Compare Hermanns 3), page 164 ff.

and are especially adapted for use in mountainous terrain. They
232 have hard hoofs which are not shoed in the steppes. Good stallions
435 are selected for breeding, the rest are castrated at four years. These horses live an average of 10 years; the men break them in at 3 years. The average price of a riding horse is $40 to $50; the highest price is $100. No horses are imported, but horse traders come from T'ao-chou and He-tso, and the Mewu-Fantzu sell them horses. Mules are not used by the tent nomads; asses cannot stand the high altitude.

492 The simple horse bridles of leather with brass mountings are made and sold by the Chinese, likewise the iron snaffles and the stirrups which can be of iron or brass. The Mewu-Fantzu use Hungarian saddles /bocksattel/ the wooden frames of which are made by the sedentary Tebu-Fantzu on the northern slopes of the

mewu

Min-shan, and sold to the nomads. (2) These frames are put together 492

2. Compare Rockhill, page 716 f. Wooden frames are used as pack saddles for yaks and pien-niu. These are also customarily used in China. Cf. Rockhill, Plate 26.

by the nomads among whom there are regular saddlers. The wooden frame is /29/ put on a thick felt pad which serves as a saddle cushion and is covered with gaily patterned pulu cloth. The saddle is slightly upholstered and is covered with leather; often it is decorated with brass mountings. A person who is worried about the health of his horse ties a bundle of gaily colored silk ribbons on its mane. This must be consecrated by a lama.

Each tent has at least one or two dogs. One of them is kept on 231 a chain fastened to a stake, the other is allowed to run loose. In the winter a hole is dug for the chained dog so that he can protect himself from the cold. The dogs get to be about 80 centimeters tall and have a very shaggy coat, especially in winter, of black, yellowish brown or yellowish gray color. They are very alert and bark at the slightest provocation. Often every dog of a camp will bark for hours, especially at night, when they catch the scent of some beast of prey. It is very difficult to approach a tent because of these dogs. One always has to have hands and pockets full of stones to be able to defend oneself against them. One can approach a tent without danger 231 only when its inmates hold back the unleashed dogs. Riders like to 411 carry a stick 60 to 70 centimeters long, to which is fastened a whip of leather about 1 meter long, with an angular iron tip. When they pass or stop at a tent they twirl it about to protect their horse from the dogs. You often see horses with large scars on their hind shanks 231 from dog bites; they are, of course, particularly skittish and often become restless even when they hear a dog bark far off. The dogs are fed tsamba and whey, sometimes also meat scraps. A good watchdog costs about as much as a yak, a less desirable one, as much as a sheep. The dogs are allowed to grow old and die a natural death. A good dog skin which is preferred as a cover for the couch, costs up to $10 or more, sometimes, however, only $2. [237 435]

/30/ The only useful crop which the tent nomads plant is oats. 243 As we said above, each family sows some oats next to its relatively low lying winter dwelling. The crop is planted in the fifth Chinese month and is cut green in the ninth and tenth. It is used as fodder for the horses in winter, less often also as yak fodder. All the oat

craft. The women know how to spin wool, but cannot weave. The only craft with which a woman can earn money is that of hairdresser. Only the men can sew, and they make all the clothing and shoes. They use Chinese cotton thread and crude needles imported from Szechuan. The only men's craft besides tailoring is saddle-making. Often, however, men earn money with their oxen as drivers of pack animals. The tents are made mostly by lamas.

Basketry is not highly developed. The large willow baskets used for gathering yak dung are sometimes made at home, but are generally imported from the neighboring sedentary Fantzu. Shallow baskets are used for storing special provisions, for example, mushrooms, and these are obtained from the Tebu-Fantzu.

The livestock of the nomads constitutes their entire wealth. They have practically no money. In livestock there are great differences between rich and poor. It often happens that a family or an entire tent community suddenly becomes impoverished, if a great many animals starve after a deep snowfall, or if many die of an epidemic. If a family loses all its animals, friends and neighbors help them out. There is very little begging. In the nomad settlements one never sees beggars; a few may be seen around the monasteries where they get a little tsamba on festive occasions or at burials.

Taxation is still very low: $0.50 to $1, according to the size of the family, must be paid annually to the tribal chief. The Chinese police collect it from him twice a year, in the second and eighth month. No monetary tax need be paid to the lamaseries, /36/ but each family must contribute food for the general temple festivals and to those temples where they have relatives among the lamas. Lamas also come to the tent camps very often to collect butter for the lamaseries, and this is always freely given.

Trade is entirely in the hands of Mohammedans and Chinese, chiefly the former. There are quite a number of things that are purchased with money; farther in the interior of the grasslands there is more barter. During the first years of the Republic silver dollars came to be used in place of unminted silver (taels). Smaller units of exchange are the tsuan (?) and copper coins. A tsuan is the equivalent of 49 copper coins; 4 tsuan are 36 cents; 11 1/2 tsuan are 1 silver dollar. In 1936 there was no paper money among the Fantzu, but it will soon replace silver which is being recalled by Chinese officials.

The nomads sell the following to Mohammedans and Chinese: sheep, horses and yaks, sheep guts, horse and yak hides, horse and